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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/766,275
Filing Date: January 19, 2001
Appellant(s): KOBAYASHI ET AL.

MAILED

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GROUP 1700

Michael S. Gzybowski
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 10, 2005 appealing from the Office action mailed September 22, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,116,662	Morman	5-1992
5,681,645	Strack et al.	10-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

Claims 1 – 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strack et al. (US 5,681,645) in view of Morman (US 5,681,645).

Strack is directed to a laminate material with stretchability and recovery, breathability and barrier properties (Abstract).

As to claim 1, Strack teaches a laminate material comprising a non-woven web elastomeric web having at least one web of textile material discontinuously bonded to each side (Abstract). Strack describes the laminate with at least two textile webs, a non-elastic textile web with stretch and recovery characteristics, and a textile web with non-woven elastomeric web properties (column 5, lines 58 - 67). Strack describes the various kinds of elastomeric web materials such as HYTREL (column 6, lines 22-67). It should be noted that the Appellant only requires that the elastic sheet is stretchable in ***at least one*** of the two directions that are orthogonal to each other, therefore, HYTREL would meet the elongation requirements because it elongates at least in one direction as seen in the Product Specification. Strack describes the use

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of adhesive which laminates the webs together so that the elasticity of that the laminate will not be interfered, i.e., interfere with recoverability (column 9, lines 35-61). Strack describes that the laminate can be used as a garment with thermal insulation and a dirt barrier to protect the wearer, while having breathability for comfort (column 11, lines 42 - 46).

As to claim 2, it should be noted that Strack does not teach the use of propylene homopolymer in the component fibers which meets the Appellant's requirements of 0 % by weight.

As to claim 3, Strack teaches that the bonding temperature of the adhesive can reach 500 degrees F (column 10, lines 29 – 38), which would result in Appellant's "heat sealed".

Strack fails to teach that the component fibers of the sheet having inelastic stretchability comprises ethylene/propylene copolymer containing ethylene at 0.5 – 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 – 10% by weight and butene at 0.5 – 15% by weight, or a mixture thereof at 100 – 10% by weight as required by claim 1. Strack teaches the claimed invention except fails to disclose that the propylene homopolymer is present in the amount of greater than 0 to 90% by weight as required by claim 2. Additionally, Strack fails to teach that the component fibers of the sheet having inelastic stretchability comprises ethylene/propylene copolymer containing ethylene at 0.5 – 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 – 10% by weight and butene at 0.5 – 15% by weight, or a mixture thereof at 100 – 10% by weight as required by claim 7.

Morman describes multi-directional stretch composite elastic material comprising at least one sheet which is stretched and one necked (non-elastic) material, which are joined together in at least three locations corresponding to the instantly claimed binding spots (column 3, lines 30-45). Morman describes the non-elastic materials are nonwovens made of polyolefins and similar polymers including ethylene copolymers, propylene copolymers and butene copolymers (column 4, lines 44 - 64). Morman teaches that necked material can also comprise polypropylene (column 7, lines 1 - 10). Morman notes that the neckable material can comprise a mixture of two or more fibers (column 7, lines 30 - 35). Therefore, in one embodiment, fibers can comprise ethylene/propylene/butene copolymers as one fiber type and polypropylene as another fiber type. It should be noted that if polypropylene is present in any amount, it will meet Appellant's requirement of greater than 0%.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the non-elastic textile web of Strack with the copolymer combination of Morman motivated by the desire to improved resilience, stretch and recovery of the composite.

Strack in view of Morman discloses the claimed invention except for that the inelastic material comprises ethylene/propylene copolymer containing ethylene at 0.5 - 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 - 10% by weight and butene at 0.5 - 15% by weight, or a mixture thereof at 100 - 10% by weight as required by claim 1. Strack in view of Morman discloses the claimed invention except for that the inelastic material comprises ethylene/propylene copolymer containing ethylene at 0.5 - 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 - 10% by weight and butene at 0.5 - 15%

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by weight, or a mixture thereof at 100 by weight as required by claim 7. It should be noted that the amount of ethylene or ethylene and butene is a result effective variable. The amount of ethylene or ethylene and butene present in the copolymer blend depends on the specific end use requirements. For example, if the amount of ethylene in the copolymer blend increases, the composition will exhibit properties more like ethylene. Likewise, if the amount of butene in the copolymer blend increases, the composition will exhibit properties more like butene. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create the inelastic material comprises ethylene/propylene copolymer containing ethylene at 0.5 – 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 – 10% by weight and butene at 0.5 – 15% by weight, or a mixture thereof at 100 – 10% by weight as required by claim 1. Strack in view of Morman discloses the claimed invention except for that the inelastic material comprises ethylene/propylene copolymer containing ethylene at 0.5 – 10% by weight, ethylene/propylene/butene containing ethylene at 0.5 – 10% by weight and butene at 0.5 – 15% by weight, or a mixture thereof at 100 by weight as required by claim 7 since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the amounts of ethylene or the amounts of ethylene and butene in order to have an optimally strong and resilient composite web depending on the desired end use.

(10) Response to Argument

Appellant argues that there is no suggestion or motivation within the teachings of Strack et al. or Morman that supports the Examiner's position on obviousness in regards to the proportions of ethylene or ethylene and butene in the copolymer. The Examiner agrees that Strack and Morman are silent in regards to certain weight percentages for the ethylene or ethylene and butene in the copolymer. However, it is known to one of ordinary skill in the art to optimize the weight percentage of polymers present in a copolymer blend depending on the desired end use. The percentage of component polymers dictate the final properties of the composition. For example, if the amount of ethylene in the copolymer blend increases, the composition will exhibit properties more like ethylene. Likewise, if the amount of butene in the copolymer blend increases, the composition will exhibit properties more like butene. Although neither reference explicitly teaches selecting the proportions of component polymers to create the copolymer composition, obviousness does not require that the cited prior art references must specifically suggest making the combination. The test for obviousness is what the combined teachings of the prior art references would have suggested to those of ordinary skill in the art. *In re Young*, 927 F.2d 588, 591, 18USPQ2d 1089, 1091 (Fed. Cir. 1991); *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). This test requires us to take into account not only the specific teachings of the prior art references, but also any inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826, 159, USPQ 342, 344 (CCPA 1968). It is held that the percentages are a result of optimization absent any evidence to the contrary. If the claimed ranges have unexpected results, the burden is upon the Appellant to demonstrate that the claimed ranges are not a matter of simple optimization. The

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Examiner has previously suggested for the Appellant to submit a 37 CFR 1.132 Declaration to establish unexpected results. The Appellant has failed to provide evidence that the percentages claimed have unexpected results.

Appellant argues that Morman teaches a necked material joined to an elastic sheet while Strack teaches a nonelastic web having stretch and recovery characteristics that are laminated to a nonwoven elastic web. It should be noted that Strack is relied upon for teaching the laminate structure of Appellant's claimed invention and Morman is only used as a secondary reference to suggest using combinations of ethylene copolymers, propylene copolymers and butene copolymers for the web of Strack. The differences between Strack and Morman such as Strack being substantially flat composite while Morman is a gathered composite is irrelevant.

Appellant argues that the prior art does not teach that after the fibrous assembly is bonded to the elastic sheet the resulting composite is stretched so as to change the dimensions of the fibers in the fibrous assembly and the elastic stretchability of the composite sheet. The Examiner respectfully submits that the fiber dimensions of the fibrous assembly and the elastic stretchability would inherently change in the composite of Strack in view of Morman since the prior art meets all claimed chemical/structural limitations. If those properties are not inherent, it is asserted that Appellant's claim must be incomplete. In other words, if Appellant's asserts a lack of inherency in Strack in view of Morman, then Appellant's claimed invention is missing an element that is critical to the invention, which would patentably distinguish it from the known prior art.

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For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

Jennifer Boyd


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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.